

ST 2,5-TWIN/ 1P BU - Feed-through terminal block



3042104

<https://www.phoenixcontact.com/us/products/3042104>

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Feed-through terminal block, nom. voltage: 500 V, nominal current: 24 A, number of connections: 3, number of positions: 1, connection method: Spring-cage/plug-in connection, 1st level connection left, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², 1st level connection right, mounting type: NS 35/7,5, NS 35/15, color: blue

Your advantages

- The plug-in ST-COMBI spring-cage terminal block series combines the system advantages of the ST standard terminal block series with those of the COMBI plug-in system
- Tested for railway applications

Commercial data

Item number	3042104
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2141
Catalog page	Page 309 (C-1-2019)
GTIN	4017918927165
Weight per piece (including packing)	7.341 g
Weight per piece (excluding packing)	6.748 g
Customs tariff number	85369010
Country of origin	DE

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Technical data

Notes

General	The max. load current must not be exceeded by the total current of all connected conductors. Current and voltage are determined by the plug used.
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Product properties

Product type	Plug-in terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	1
Number of connections	3
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	3
Nominal cross section	2.5 mm ²

1st level connection left

Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 61984
Conductor cross section rigid	0.08 mm ² ... 4 mm ²
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ²
Nominal current	24 A (observe derating)
Maximum load current	24 A (For 4 mm ² conductor cross section, see derating curve)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

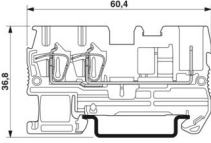
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Dimensions

Dimensional drawing	
Width	5.2 mm
End cover width	2.2 mm
Height	60.5 mm
Depth on NS 35/7,5	36.5 mm
Depth on NS 35/15	44 mm

Material specifications

Color	blue (RAL 5015)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

Electrical tests

Surge voltage test

Test voltage setpoint	7.3 kV
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

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Open side panel	Yes
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Mechanical tests

Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	$0.964 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	0.58g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C (max. operating temperature see derating curve)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 61984
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Mounting

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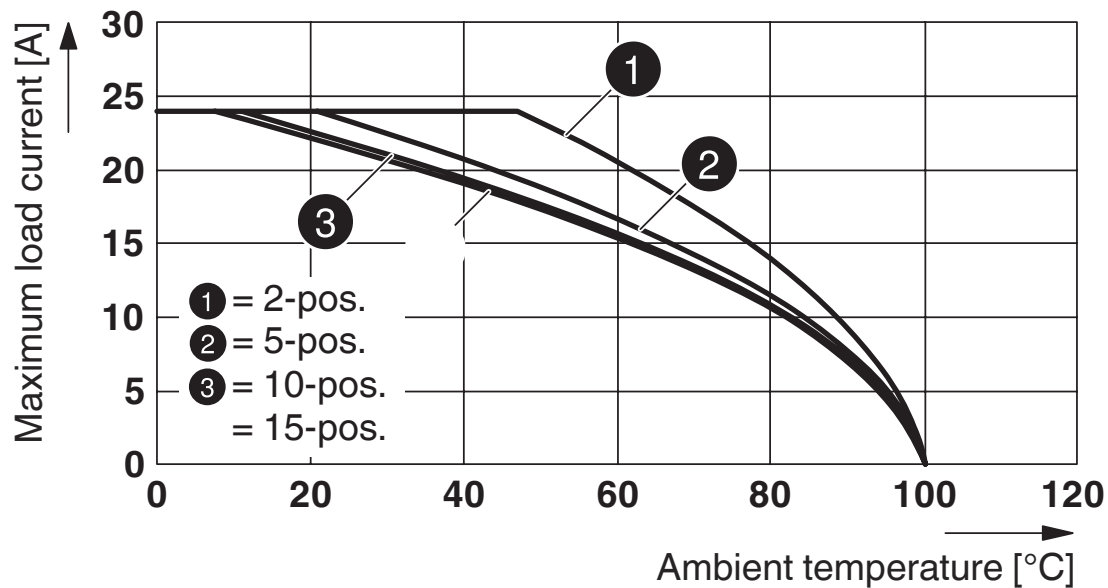
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Mounting type	NS 35/7,5
	NS 35/15

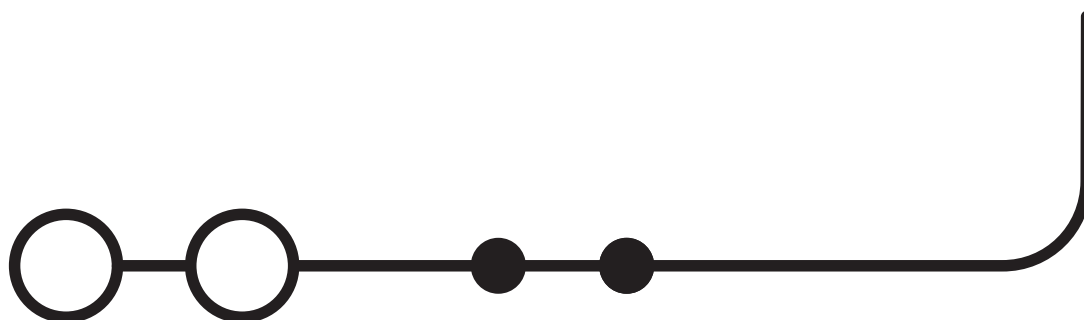
Drawings

Diagram



Applies to all male connector variants SP...

Circuit diagram



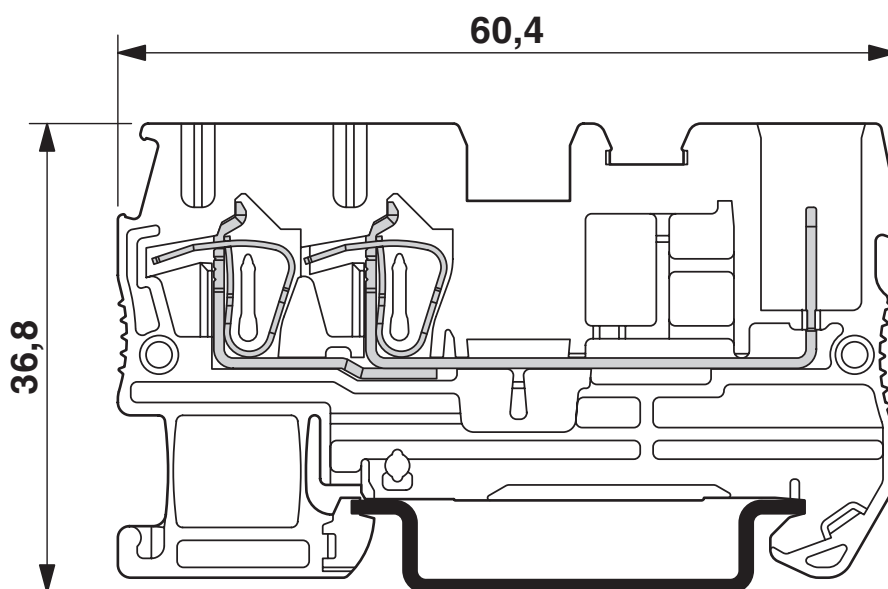
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Dimensional drawing



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Approvals

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 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	20 A	28 - 12	-
Use group C	600 V	20 A	28 - 12	-

 IECEE CB Scheme Approval ID: DE1-62736/B1/B2				
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 EAC Approval ID: RU C-DE.BL08.B.00644				
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 LR Approval ID: LR2042068TA				
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 VDE approval of drawings Approval ID: 40019518				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	500 V	-	-	0.2 - 2.5
Only rigid conductors	500 V	-	-	0.2 - 4

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	20 A	28 - 12	-
Use group C	600 V	20 A	28 - 12	-
Use group F	500 V	20 A	28 - 12	-

DNV Approval ID: TAE00001CS				
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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250117

ETIM

ETIM 9.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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